

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
9 June 2005 (09.06.2005)

PCT

(10) International Publication Number  
**WO 2005/053361 A2**

(51) International Patent Classification<sup>7</sup>: **H05B 3/00**

(21) International Application Number:  
PCT/US2004/039956

(22) International Filing Date:  
24 November 2004 (24.11.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
10355043.7 25 November 2003 (25.11.2003) DE

(71) Applicant (for all designated States except US): **WAT-  
LOW ELECTRIC MANUFACTURING COMPANY**  
[US/US]; 12001 Lackland Road, Saint Louis, MO 63146  
(US).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **RUSSEGER, Elias**  
[AT/AT]; Obergau 302, A-5440 Golling (AT).

(74) Agents: **BURRIS, Kelly, K.** et al.; Harness, Dickey &  
Pierce, P.L.C., 7700 Bonhomme Avenue, Suite 400, St.  
Louis, MO 63105 (US).

(81) Designated States (unless otherwise indicated, for every  
kind of national protection available): AE, AG, AL, AM,  
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,  
CO, CR, CU, CZ, DK, DM, DZ, EC, EE, EG, ES, FI, GB,  
GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG,  
KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG,  
MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH,  
PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN,  
TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

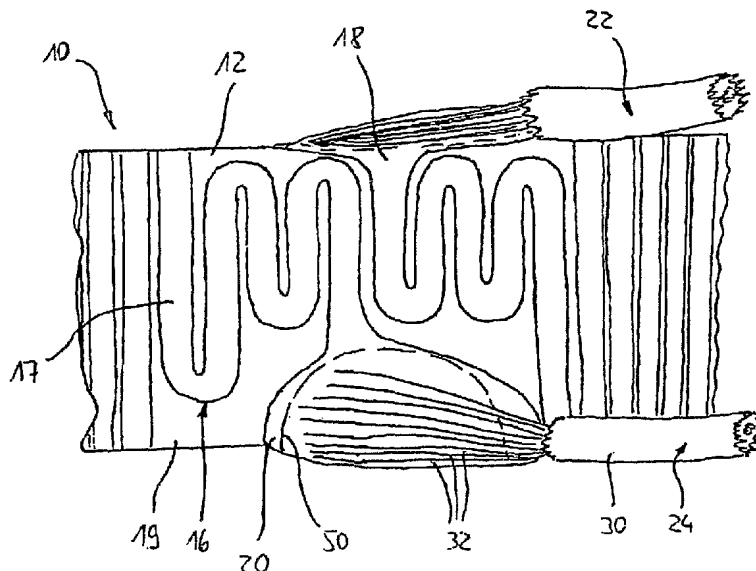
(84) Designated States (unless otherwise indicated, for every  
kind of regional protection available): ARIPO (BW, GH,  
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,  
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),  
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,  
FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE,  
SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,  
GW, ML, MR, NE, SN, TD, TG).

Published:

— without international search report and to be republished  
upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guid-  
ance Notes on Codes and Abbreviations" appearing at the begin-  
ning of each regular issue of the PCT Gazette.

(54) Title: METHOD FOR THE ATTACHMENT OF AN ELECTRICAL LEAD WIRE ON A SURFACE ELEMENT, AS WELL  
AS A HEATING ELEMENT, ESPECIALLY FOR A PLASTIC-SPRAYING DEVICE



(57) Abstract: An apparatus and methods for attaching electrical leads (22, 24) to a heating layer (16) of a heater are provided. An attachment material (50) is thermally sprayed over cords (32) of the electrical leads (22, 24), which are in contact with the heating layer (16) over a contact area (20). The attachment material (50) and the heating layer (16) are further thermally sprayed with a layer (52), which is an isolating material. The thermal sprayed connection between the electrical leads (22, 24) and the heating layer (16) thus provides more intimate contact and an improved electrical connection.